Date of Application, 30th July, 1888
Specification Accepted, 14th Sept., 1888

A.D. 1888, 30*th* JULY. N° 10,994.

COMPLETE SPECIFICATION.

Improvements in the Construction of Suction Valves for Exhausting Air from Chambers in Artificial Palates for Dental Purposes.

I JOHN LOUIS PIGOT LEMAN of 18 Claremont Road, Surbiton in the County of Surrey, Dental Surgeon, do hereby declare the nature of my said invention and in what manner the same is to be performed, to be particularly described and ascertained in and by the following statement :—

The object of my invention is to improve the construction of valves fitted in such artificial palates as are retained in their places by suction, by providing improved means of obtaining and retaining a vacuum between the natural and artificial palates.

And in order that my said invention may be particularly described and ascertained reference is hereby made to the accompanying drawings in which similar letters of reference indicate corresponding parts ; such drawings being made to an enlarged scale for greater clearness.

Fig. 1 is a plan view of a metallic disc having a central hole *b* as shown.

Fig. 2 is a section of the same on the line *x y* of Fig. 1.

Fig. 3 is a plan view of the valve case, the cylindrical portion being made smooth on its inner surface, as shown in Fig. 3, or corrugated as shown in Fig. 4. Fig. 5 being a section on the lines *v w* of Figs. 3 and 4, with the exception that the screw thread is shown in Fig. 5 instead of the plain and corrugated surfaces shown in Figs. 3 and 4.

Figs. 6, 7, 8 and 9 shown forms of the inner valve case *e* which is fitted into the valve case *c* to keep the valve disc *f* in its place. This inner case *e* may be constructed as a plain cylinder as shown in Fig. 6, or, it may be corrugated inside and plain outside as shown in Fig. 7 or plain inside and corrugated externally as shown in Fig. 8, or corrugated both externally and internally as shown in Fig. 9.

Fig. 10 is a section of the inner valve case *e* in which section the outside of the cylinder is shown formed with a screw thread to fit the inside screw thread shown in Fig. 5, *f* (Fig. 11) is a plan of the valve disc which rests upon the raised annular seat *d*.

[*Price* 6*d*.]

The valve disc *f*. may be made of gold, platina, vulcanite, or other suitable material.

The corrugations form convenient channels for the passage of the air, and also act as guides to the circular edge of the valve disc *f* but in some cases the valve disc *f* has a corrugated edge and is fitted into a plain cylindrical guide *e* of the form shown in Fig. 6.

The plate *a* is used in a temporary manner, as a mould, to form a vacuum chamber, the plate *a* and valve case *c* being held in the position shown in Figs. 12 and 13, Fig. 12 being a plan and Fig. 13 a side view. The vulcanite *g*, or other material forming the palate, is then formed round *a* and *c* in the usual manner, whereby the valve case *c* becomes embedded in and united to the artificial palate. The plate *a* is then removed, leaving the space *h*, which forms the vacuum chamber, between the natural palate and the artificial palate *g*.

The valve case *c* being secured in the artificial palate *g*, as above described, the valve disc *f* is inserted in the case *c*—The inner case *e* is then secured in the valve case *c*, as shewn in Fig. 14.

The air is drawn out of the vacuum chamber *h* through the central hole *k* and the air is prevented from gaining access to the chamber *h* by the valve disc *f* resting upon the annular seat *d*.

I do not confine myself to the exact forms of the various parts of my invention as such parts admit of slight variations in their construction.

Having now particularly described and ascertained the nature of my said invention and in what manner the same is to be performed I declare that what I claim is ;

1. The method of fitting artificial palates for dental purposes with vacuum chambers and suction valves substantially as hereinbefore described and illustrated by the drawings.

2. In the construction of valves for the purpose aforesaid, the combination of the valve case *c* having a raised annular seat *d*, valve disc *f* and inner case *e* severally operating substantially as hereinbefore described and illustrated by the drawings.

3. The general construction, combination, and arrangement of the several and respective parts together forming my improvements in the construction of suction valves for exhausting air from chambers in artificial palates for dental purposes, substantially as hereinbefore described and illustrated by the drawings.

Dated 30th July 1888.

GEO. DOWNING,
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Agent for Applicant.

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1888.

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(1 SHEET)

FIG. 1

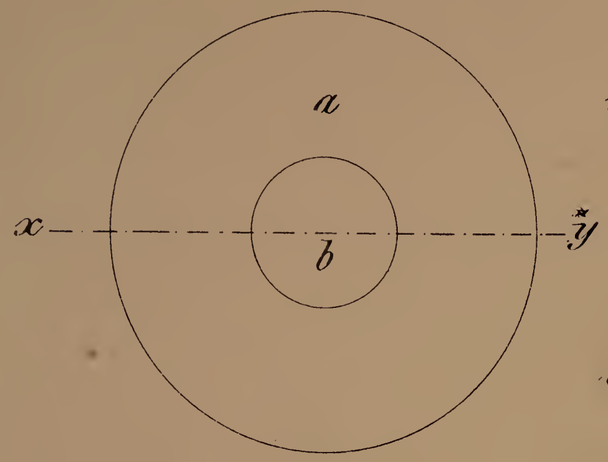


FIG. 3

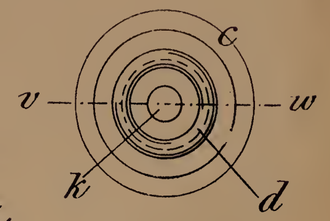


FIG. 4.

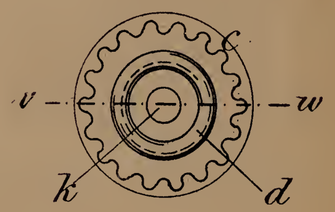


FIG. 6



FIG. 9



FIG. 7



FIG. 10

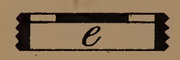


FIG. 2

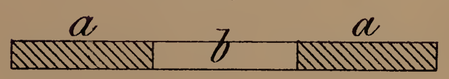


FIG. 5

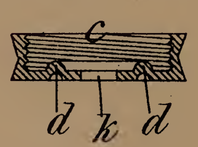


FIG. 8



FIG. 11



FIG. 12

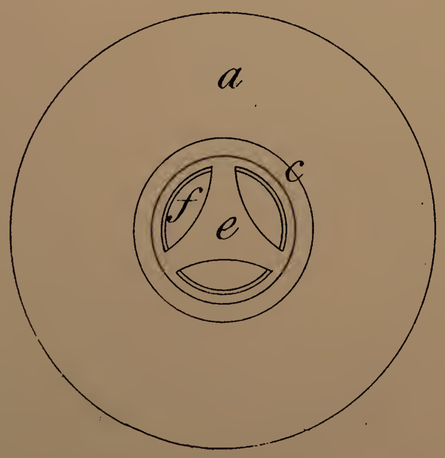


FIG. 13

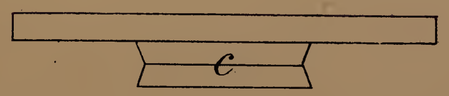
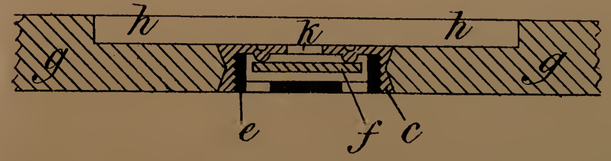


FIG. 14



[This Drawing is a reproduction of the Original on a reduced scale.]

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